PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 040133PCT		FOR FURTHER	ACTION	See Form PCT/IPEA/416				
International application No.			late (day/month/year)	Priority date (day/month/year)				
PCT/	/JP2005/00175	5 07.02.200	05	12.02.2004				
Internation	· ·	C) or national classification and						
	G11B20/12, G11B7/004, G11B7/007, G11B20/10, G11B27/00							
Applicant								
PION	NEER CORPORAT	ION						
1.		nal preliminary examination r itted to the applicant according		International Preliminary Examining Authority				
2.	This REPORT consists of a	total of 6	sheets, including	g this cover sheet.				
3.	This report is also accompan	nied by ANNEXES, comprising	g:					
	a. (sent to the appli	cant and to the International B	<i>ureau)</i> a total of	sheets, as follows:				
	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).							
	sheets which the disclose	ch supersede earlier sheets, but		siders contain an amendment that goes beyond in item 4 of Box No. I and the Supplemental				
	Box.							
	b (sent to the Inter	national Bureau only) a total o	f (indicate type and numbe	er of electronic carrier(s))				
	valeted therete in	computer vandable form only	as indicated in the Cample	, containing a sequence listing and/or tables emental Box Relating to Sequence Listing (see				
		Administrative Instructions).	as indicated in the supple	entential Box Relating to Sequence Listing (see				
4.	This report contains indicati	ons relating to the following ite	ems:					
	Box No. I Ba	sis of the report						
	Box No. II Pri	ority						
	Box No. III No	on-establishment of opinion wit	h regard to novelty, invent	tive step and industrial applicability				
	Box No. IV La	ck of unity of invention						
	DON TIO.	asoned statement under Article ations and explanations suppor		lty, inventive step or industrial applicability;				
Box No. VI Certain documents cited								
	Box No. VII Ce	rtain defects in the internations	al application					
	Box No. VIII Ce	rtain observations on the interr	national application					
Date of st	submission of the demand		Date of completion of th	uis report				
Name and mailing address of the IPEA/JP		Authorized officer						
Facsimile No.		Telephone No.						

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/001755

Box	No. I	I Basis of the report		
1.		th regard to the language, this report is based on the internation icated under this item.	onal application in the language in which it was filed, unless otherwise	
		This report is based on translations from the original langua which is the language of a translation furnished for the purport international search (Rule 12.3 and 23.1(b)) publication of the international application (Rule 12.4 international preliminary examination (Rule 55.2 and	()	,
2.	recei		report is based on (replacement sheets which have been furnished to the referred to in this report as "originally filed" and are not annexed t	
			as originally filed/furnished	
			received by this Authority on	
	\square	1	received by this Authority on	
		the claims:	an arisinally Gladforniahad	
		nos. 2,3,5,6,8-10,12-14,16,17 nos.*	as originally filed/furnished as amended (together with any statement) under Article 19	
		nos.* 1,4,7,11,15,18		
			received by this Authority on	
	\boxtimes	the drawings:	- · · · · · · · · · · · · · · · · · · ·	
		sheets fig. 1-10	as originally filed/furnished	
		sheets*	received by this Authority on	
		sheets*	received by this Authority on	
		a sequence listing and/or any related table(s) – see Supplen	nental Box Relating to Sequence Listing.	
3.		The amendments have resulted in the cancellation of:		
		the description, pages		
		the claims, nos.		
		41		
		the sequence listing (specify):		
		any table(s) related to sequence listing (specify):		
4.		This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as for	dments annexed to this report and listed below had not been made, sinciled, as indicated in the Supplemental Box (Rule 70.2(c)).	e
		the description, pages		
		the claims, nos.		
		the drawings, sheets/figs		
		the sequence listing (specify):		
		any table(s) related to sequence listing (specify):		
*	If ite	tem 4 applies, some or all of those sheets may be marked "sup	erseded."	

International application No.		
PCT/JP2005/001755		

Box	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement				
	Novelty (N) Claims 1-18	_ YES			
	Claims				
	Inventive step (IS) Claims	VES			
	Claims Claims 1-18				
		_			
	Industrial applicability (IA) Claims 1-18 Claims	3.50			
		_ 110			
2.	Citations and explanations (Rule 70.7)				
	Document 1: JP 09-167447 A (Sony Corp.), 24 June 1997,				
	paragraphs [0008], [0040] to [0048], [0103]				
	and [0104], fig. 2 and 3				
	Document 2: JP 11-250583 A (Sony Corp.), 17 September				
	1999, paragraphs [0136] to [0153] and				
	[0176], fig. 11 to 13				
	Document 3: JP 2001-184652 A (Ricoh Co., Ltd.), 06 July				
	2001, paragraph [0065]				
	Document 4: JP 2001-266547 A (Sanyo Electric Co., Ltd.),				
	28 September 2001, paragraphs [0017], [0018]				
	and [0024], fig. 2, 3 and 6				
	Document 5: JP 10-143406 A (Hitachi, Ltd.), 29 May 1998,				
	paragraphs [0012] to [0026], fig. 1 to 11				
	Document 6: JP 2000-123494 A (Kenwood Corp.), 28 April				
	2000, paragraphs [0022] to [0031], fig. 1				
	and 2				
	The inventions set forth in claims 1 to 4, 6, 9, 11				
	to 13 and 15 to 18 do not involve an inventive step in				
	the light of document 1 and document 2. Document 1				
	discloses a technique for recording a volume space bitmap				

and a fault detection byte that expresses whether said volume space bitmap is normal or abnormal; discloses a

International application No.
PCT/JP2005/001755

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

technique whereby more of the bits in the aforementioned fault detection byte are allocated in cases when a variety of consistency verification processes are carried out in addition to the process for determining whether or not there is an abnormality; discloses a technique whereby a recovery program is executed in cases when the aforementioned fault detection byte indicates that there is an abnormality; and also discloses a technique whereby the aforementioned fault detection byte is set so as to indicate that there is an abnormality prior to the data writing process, and is set so as to indicate that all is normal after the completion of the data writing process. Furthermore, document 1 also indicates that a "variety of consistency verification processes, [including]...a process for verifying the consistency of the file management information...are carried out in addition to the process for determining whether or not there is an abnormality" (paragraph [0103]), and thus document 1 can be said to suggest increasing the range of items that are subjected to a consistency verification process. Meanwhile, document 1 and document 2 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the invention disclosed in document 1 subjects each set of management information from among a plurality of types of management

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information, including defect management information, to consistency verification processes, like in the invention disclosed in document 2. When combining the inventions disclosed in documents 1 and 2, a person skilled in the art could select the well-known PCA counters that are disclosed in document 3 as the plurality of types of management information, as appropriate. In addition, the selection of a well-known write once/read many type disk as the disk in the invention disclosed in document 1 is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.

The inventions set forth in claims 5, 10 and 14 do not involve an inventive step in the light of documents 1, 2 and 4. Document 1 and document 4 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, it would have been easy for a person skilled in the art to conceive of configuring so that the fault detection byte and the volume space bitmap in the invention disclosed in document 1 have a single-table data structure, like in the invention disclosed in document 4, or of configuring so that the recovery program in the invention disclosed in document 1 searches the user data area in order to recover a file information table, like in the invention disclosed in document 4.

The inventions set forth in claims 7 and 8 do not involve an inventive step in the light of documents 1, 2

PCT/JP2005/001755

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

and 5. Document 1 and document 5 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the prescribed sets of data that are manipulated in order to indicate whether a set of data must be subjected to a recovery process (i.e., in order to indicate whether the set of data was updated correctly) in the invention disclosed in document 5 are subjected to consistency verification processes in the invention disclosed in document 1. Furthermore, the inventions set forth in claims 7 and 8 cannot be considered to exhibit a significant effect in comparison to the inventions disclosed in documents 1, 2 and 5 as a result of configuring so that the prescribed data is data that is stored on each layer of the well-known multilayer optical disk disclosed in document 6 when combining the inventions disclosed in documents 1 and 5; therefore, the configuration in question is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.